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Proposed Maximum Residue Limit

PMRL2014-55

Azoxystrobin

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing to establish maximum residue limits (MRLs) for azoxystrobin on various commodities to permit the import and sale of foods containing such residues.

Azoxystrobin is a fungicide currently registered in Canada for use on various commodities.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when azoxystrobin is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for azoxystrobin is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Standards Council of Canada.

The proposed MRLs, to replace or be added to the MRLs already established for azoxystrobin, are as follows.

Table 1 Proposed Maximum Residue Limits for Azoxystrobin.

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Azoxystrobin	(αE)-methyl 2-[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-α-(methoxymethylene)benzeneacetate, including the isomer (Z)-methyl 2-[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-α-(methoxymethylene)benzeneacetate	40	Citrus oil ²
		15	Citrus Fruit, Revised (CG 10) ³
		4.0	Small fruit vine climbing, except fuzzy kiwifruit Subgroup (CSG 13-07F) ⁴
		3.0	Bushberry Subgroup (CSG 13-07B) ⁵ ; Pepper/Eggplant Subgroup (CSG 8-09B) ⁶
		2.0	Stone Fruits (CG 12) ⁷ ; Acerola, atemoya, avocado, biriba, canistel, cherimoya, custard apple, dragon fruit, feijoa, guava, ilama, jaboticaba, jackfruit, longan, loquat, passionfruit, pawpaw, papaya, persimmon, pulasan, rambutan, sapodilla, black sapote, mamey sapote, white sapote, soursop, spanish lime, star apple, starfruit, tamarind, wax jambu, and sugar apple
		0.7	Cottonseed Subgroup (CSG 20C)
		0.2	Sugarcane cane

¹ ppm = parts per million

² This action revises the established MRL of 3.3 ppm for orange oil.

³ This action revises the established MRL of 10 ppm for crops in Crop Group 10.

⁴ This action revises the established MRL of 3.0 ppm for crops in Crop Subgroup 13-07F.

⁵ This action revises the established MRL of 3.0 ppm for crops in Crop Subgroup 13-07B.

⁶ This action revises the established MRL of 2.0 ppm for crops in Crop Subgroup 8-09B.

⁷ This action revises the established MRL of 0.8 ppm for peaches.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

Table 2 compares the MRLs proposed for azoxystrobin in Canada with corresponding American tolerances and Codex MRLs.¹ American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food website, by pesticide or commodity.

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Citrus oil	40	40	None
Bushberries	3.0 (CSG 13-07B)	5.0 (CSG 13-07B)	5.0 (Berries & other small fruits, except cranberry, grapes and strawberry)
Grapes	4.0 (CSG 13-07F)	2.0 (CSG 13-07F)	2.0
Acerola, atemoya, avocado, biriba, canistel, cherimoya, custard apple, dragon fruit, feijoa, guava, ilama, jaboticaba, jackfruit, longan, loquat, passionfruit, pawpaw, persimmon, pulasan, rambutan, sapodilla, black sapote, mamey sapote, white sapote, soursop, spanish lime, star apple, starfruit, tamarind, wax jambu, sugar apple	2.0	2.0	None
Papaya	2.0	2.0	0.3
Stone Fruits	2.0 (CG 12)	1.5 (CG 12)	2.0
Sugarcane cane	0.2	0.2	None

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for azoxystrobin up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for azoxystrobin on peach, cherry, plum, sugarcane and cottonseed were submitted to support the establishment of MRLs for azoxystrobin in/on several imported commodities. Previously submitted residue data for azoxystrobin on highbush blueberries, bell and non-bell peppers, citrus fruits and grapes were also reassessed to support the establishment of MRLs in/on imported commodities. In addition, processing data on treated plums, cottonseeds and sugarcane were assessed to determine the potential for concentration of residues of azoxystrobin into processed commodities.

Maximum Residue Limits

The recommendation for MRLs for azoxystrobin was based upon the residues observed in crop commodities treated according to label directions or at exaggerated rates in the exporting countries and Canada, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for imported crop commodities.

Table A1 Summary of Field Trial and Processing Data Used to Support MRLs

Commodity	Appl. Method/ Total Appl. Rate	Preharvest Interval (days)	Total Minimum Residues ¹ (ppm)	Total Maximum Residues ^a (ppm)	Experimental Processing Factor
Bell pepper	Foliar spray/ 1.7-1.9 kg a.i./ha	0	0.09	0.40	Not required
Non-bell pepper	Foliar spray/ 1.7-2.3 kg a.i./ha	0	<0.04	0.99	Not required
Grapefruit	Foliar/ 0.56 kg a.i./ha + postharvest dip/ 0.12 kg a.i./100L	0	1.121	5.45	Orange oil: 4.7x; No concentration observed in juice
	Foliar/ 0.56 kg a.i./ha + postharvest spray/ 1 kg a.i./250,000 kg fruit	0	0.43	1.01	
Orange	Foliar/ 0.56 kg a.i./ha + postharvest dip/ 0.12 kg a.i./100L	0	1.23	4.01	
	Foliar/ 0.56 kg a.i./ha + postharvest spray/ 1 kg a.i./250,000 kg fruit	0	0.39	1.10	
Lemon	Foliar/ 0.56 kg a.i./ha + postharvest dip/ 0.12 kg a.i./100L	0	1.49	9.20	
	Foliar/ 0.56 kg a.i./ha + postharvest spray/ 1 kg a.i./250,000 kg fruit	0	0.28	1.59	
Sweet cherry	Foliar spray/ 2.24 kg a.i./ha	0	0.19	1.05	Not required
Peach	Foliar spray/ 2.24 kg a.i./ha	0	0.20	1.42	Not required
Plum	Foliar spray/ 2.24 kg a.i./ha	0	0.02	0.43	No concentration observed in dried prune
Highbush blueberry	Foliar spray/ 1.7 kg a.i./ha	0	0.49	1.63	Not required
Grape	Foliar spray/ 1.5-1.7 kg a.i./ha	12-19	0.11	2.22	No concentration observed in raisins and juice
Undelinted cotton seeds	In-furrow spray at planting + foliar sprays/ 0.7 kg a.i./ha	45	<0.02	0.62	No concentration observed in meal and refined oil
Mango	Preharvest/ 1.7 kg a.i./ha	0	0.07	0.50	Not required
Lychee	Preharvest/ 2.0 kg a.i./ha	0	0.25	1.99	Not required

Commodity	Appl. Method/ Total Appl. Rate	Preharvest Interval (days)	Total Minimum Residues ¹ (ppm)	Total Maximum Residues ^a (ppm)	Experimental Processing Factor
Sugarcane	Foliar spray/ 0.9 kg a.i./ha	27-30	<0.02	0.12	No concentration observed in molasses and refined sugar

¹ Total residues of azoxystrobin and the Z-isomer (R230310).

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of azoxystrobin and the Z-isomer. Residues in these commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.